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TC 2800 MAIL ROOM

In the Application of: **WOBBEN**

Serial No: **10/089,774**

Priority Date: **OCTOBER 6, 1999**

Title: **METHOD FOR MONITORING WIND POWER PLANTS**

Group Art Unit: **2857**

Examiner:

Assistant Commissioner for Patents  
Washington, DC 20231

**TRANSMITTAL COVER LETTER**

Dear Sir:

With respect to the above-referenced application, transmitted herewith is a **PRELIMINARY AMENDMENT** (8 pages)

The fee has been calculated as shown below:

CLAIMS AS AMENDED						
	Claims Remaining	Highest Number Previously Paid	Extra	Rate		Amount
				Large	Small	
Number of Claims In Excess of 20	26	20	6	\$18.00	\$9.00	\$108.00
Independent Claims In Excess of 3	3	3	0	\$80.00	\$40.00	-0-
Extension Fee:	a) One Month			\$110.00	\$55.00	
	b) Two Months			\$400.00	\$200.00	
	c) Three Months			\$920.00	\$460.00	-0-
TOTAL FEE DUE:						\$108.00

**Method of Payment:**

☒ [XX] A check payable to the Commissioner of Patents and Trademarks, in the amount of \$108.00 is enclosed as payment of the Total Fee.

☐ [ ] Please charge my Deposit Acc. 50-0763 in the amount of \$\_\_\_\_\_ to cover the above fees. A duplicate copy of this sheet is enclosed.

☒ [XX] The Commissioner is hereby authorized to charge any fees that may be required, or credit any overpayment to Deposit Acc. 50-0763. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

Date: August 15, 2002

Neil Steinberg, Reg. No. 34,735  
Telephone No. (650) 968-8079



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
(205.001)

In re Application of: **WOBLEN** )  
Serial No: **10/089,774** ) Group Art Unit:  
International Filing Date: **JULY 7, 2000** ) Examiner:  
Priority Date: **OCTOBER 6, 1999** )  
Title: **METHOD FOR MONITORING WIND POWER PLANTS** )


Assistant Commissioner for Patents  
Washington, D.C. 20231

**CERTIFICATE OF MAILING UNDER 37 CFR 1.8**

I hereby certify that the attached (1) Transmittal Letter (1 page and 1 copy thereof),  
(2) Preliminary Amendment (8 pages), and (3) check (\$108.00) are being deposited with  
the United States Postal Service with sufficient postage as first class mail in an envelope  
addressed to:

Assistant Commissioner for Patents  
Washington, D.C. 20231

on August 15, 2002.

  
Signature

Michiko Sites  
Print Name of Person Signing Certificate

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THE UNITED STATES PATENT AND TRADEMARK OFFICE  
(205.001)

In re Application of: **WOBLEN**

Serial No: **10/089,774** ✓

International Filing Date: **JULY 7, 2000** ✓

Priority Date: **OCTOBER 6, 1999**

Title: **METHOD FOR MONITORING WIND POWER PLANTS** ✓

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) Group Art Unit:  
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) Examiner:  
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TC 2800 MAIL ROOM

Assistant Commissioner for Patents  
Washington, D.C. 20231

**PRELIMINARY AMENDMENT**

Dear Sir:

Preliminary to the examination of the above-referenced application, kindly amend the application as follows:

**IN THE CLAIMS**

Please **DELETE** claims 1-8, without prejudice.

Please **ADD** the following claims:

- 1            9. (**NEW**)    A method of acoustically monitoring a wind power installation having a  
2    plurality of components including at least rotor blades, the method comprising:  
3            detecting an operating acoustic spectrum generated by at least one of the  
4    components during operation of the wind power installation;  
5            comparing the operating acoustic spectrum to a reference acoustic spectrum;  
6            detecting a deviation between the operating acoustic spectrum and the reference  
7    acoustic spectrum; and  
8            detecting whether the deviation between the operating acoustic spectrum and the  
9    reference acoustic spectrum exceeds a threshold.

1           10. **(NEW)** The method of claim 9 wherein the reference acoustic spectrum is an  
2 acoustic spectrum produced by the component during normal operation.

1           11. **(NEW)** The method of claim 9 wherein the reference acoustic spectrum is an  
2 acoustic spectrum that is expected to be generated by the component during normal  
3 operation.

1           12. **(NEW)** The method of claim 9 wherein when the deviation between the  
2 operating acoustic spectrum and the reference acoustic spectrum exceeds the threshold,  
3 the operation of the wind power installation is automatically or manually terminated.

1           13. **(NEW)** The method of claim 9 further including:  
2           repetitively detecting the operating acoustic spectrum generated by the component  
3 of the wind power installation;  
4           repetitively comparing the detected operating acoustic spectrums to a reference  
5 acoustic spectrum;  
6           detecting whether the comparison between the detected operating acoustic  
7 spectrums to a reference acoustic spectrum exceeds a threshold.

1           14. **(NEW)** The method of claim 9 further including:  
2           continuously detecting the operating acoustic spectrum generated by the component  
3 of the wind power installation;

4 comparing the detected operating acoustic spectrums to a reference acoustic  
5 spectrum;

6 detecting whether the comparison between the detected operating acoustic  
7 spectrums to a reference acoustic spectrum exceeds a threshold.

1 15. (NEW) The method of claims 13 and 14 further including generating an  
2 acoustic spectrum database using the detected operating acoustic spectrums.

1 16. (NEW) A method of acoustically monitoring a wind power installation having a  
2 plurality of components including at least rotor blades, the method comprising:

3 detecting a first operating acoustic spectrum generated by at least one component  
4 during operation of the wind power installation at a first power output level;

5 detecting a second operating acoustic spectrum generated by the component during  
6 operation of the wind power installation at a second power output level;

7 comparing the first operating acoustic spectrum to a first reference acoustic  
8 spectrum;

9 comparing the first operating acoustic spectrum to a second reference acoustic  
10 spectrum;

11 detecting whether a deviation between the first operating acoustic spectrum and the  
12 first reference acoustic spectrum exceeds a first threshold; and

13 detecting whether a deviation between the second operating acoustic spectrum and  
14 the first reference acoustic spectrum exceeds a second threshold.

1 17. (NEW) The method of claim 16 wherein the first reference acoustic spectrum  
2 is the acoustic spectrum produced by the component during normal operation and while  
3 the wind power installation is operating at the first power output level.

1 18. (NEW) The method of claim 17 wherein the second reference acoustic  
2 spectrum is the acoustic spectrum produced by the component during normal operation  
3 and while the wind power installation is operating at the first power output level.

1 19. (NEW) The method of claim 16 wherein the first reference acoustic spectrum  
2 is an acoustic spectrum that is expected to be generated by the component during normal  
3 operation and while the wind power installation is operating at the first power output level.

1 20. (NEW) The method of claim 19 wherein the second reference acoustic  
2 spectrum is an acoustic spectrum that is expected to be generated by the component  
3 during normal operation and while the wind power installation is operating at the second  
4 power output level.

1 21. (NEW) The method of claim 16 wherein when the deviation between the first  
2 operating acoustic spectrum and the first reference acoustic spectrum exceeds the first  
3 threshold, the operation of the wind power installation is automatically or manually  
4 terminated.

1 22. (NEW) The method of claim 16 wherein when the deviation between the  
2 second operating acoustic spectrum and the second reference acoustic spectrum exceeds

3 the second threshold, the operation of the wind power installation is automatically or  
4 manually terminated.

1 23. **(NEW)** The method of claims 16 and 22 wherein the first threshold is equal to  
2 the second threshold.

1 24. **(NEW)** A method of acoustically monitoring a wind power installation having a  
2 plurality of components including at least rotor blades, the method comprising:

3 recording a first noise spectrum generated by at least one component during  
4 operation of the wind power installation at a first output power level;

5 comparing the first noise spectrum to a first reference noise spectrum;

6 detecting deviations between the first noise spectrum and the first reference noise  
7 spectrum;

8 communicating the deviations to a remote monitoring center; and

9 communicating signals representative of the sounds that caused the deviations  
10 between the first noise spectrum and the first reference noise spectrum to the remote  
11 monitoring center.

1 25. **(NEW)** The method of claim 24 further including continuously or repetitively  
2 recording noise spectrums generated by the at least one component during operation of  
3 the wind power installation.

1 26. **(NEW)** The method of claim 24 further including generating an acoustic  
2 spectrum database using the recorded noise spectrums.

1 27. (NEW) The method of claim 24 wherein the wind power installation is shut  
2 down if the deviations between the first noise spectrum and the first reference noise  
3 spectrum exceed a predetermined threshold value.

1 28. (NEW) The method of claim 24 further including:  
2 recording a second noise spectrum generated by the at least one component during  
3 operation of the wind power installation at a second output power level;  
4 comparing the second noise spectrum to a second reference noise spectrum;  
5 detecting deviations between the second noise spectrum and the second reference  
6 noise spectrum;  
7 communicating the deviations to a remote monitoring center; and  
8 communicating signals representative of the sounds that caused the deviations  
9 between the second noise spectrum and the second reference noise spectrum to the  
10 remote monitoring center.

1 29. (NEW) The method of claim 28 wherein the first reference noise spectrum is a  
2 noise spectrum produced by the component during normal operation and while the wind  
3 power installation is operating at a first power output level.

1 30. (NEW) The method of claim 29 wherein the second reference noise spectrum  
2 is the noise spectrum produced by the component during normal operation and while the  
3 wind power installation is operating at a second power output level.



1           31. **(NEW)** The method of claim 28 wherein the first reference noise spectrum is a  
2 noise spectrum that is expected to be generated by the component during normal  
3 operation and while the wind power installation is operating at the first power output level.

1           32. **(NEW)** The method of claim 31 wherein the second reference noise spectrum  
2 is a noise spectrum that is expected to be generated by the component during normal  
3 operation and while the wind power installation is operating at the second power output  
4 level.

1           33. **(NEW)** The method of claim 24 wherein when the deviation between the first  
2 operating acoustic spectrum and the first reference acoustic spectrum exceeds a  
3 predetermined threshold value, the operation of the wind power installation is automatically  
4 or manually terminated.

1           34. **(NEW)** The method of claim 24 wherein when the deviation between the  
2 second operating acoustic spectrum and the second reference acoustic spectrum exceeds  
3 a predetermined threshold value, the operation of the wind power installation is  
4 automatically or manually terminated.

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